MENTAL DEFICIENCY ON MERSEYSIDE*

Its Connection with the Social Problem Group

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F all the social and biological questions which urgently await solution, one of the most important is how to identify those persons who outwardly are normal but who inwardly carry defective genes. Until such identification is possible the prevention of undesirable parenthood by sterilization or any similar method, even though it were legalized, would only be effective over a small part of the field.

A considerable step forward was taken towards the solution of this problem by the careful investigations which were carried out by Dr. E. O. Lewis for the Committee set up by the Board of Education and the Board of Control to inquire into the incidence of mental deficiency. His conclusions can be briefly summarized as follows:

i. Mental defect can be conveniently separated into three grades which shade into one another and become indistinguishable at the boundaries; idiocy, imbecility, and feeblemindedness. The more serious grades, idiocy and imbecility, are sporadic; they are liable to appear in any class of the community and at any time without apparent

ii. Feeblemindedness, on the other hand, is less the sport of chance; it is not evenly spread throughout any area but lies thick in certain patches; there are 'pockets' of the feebleminded, as Dr. Lewis expressed it.

iii. Moreover this higher-grade defect is not evenly spread throughout the population, but is relatively conspicuous in certain classes. These classes constitute what has been termed the 'Social Problem Group,' because it is from this group that criminals, paupers, unemployables, and all types of that kind who are likely sooner or later

These are facts which were probably well known to all who have been working for any length of time among the mentally deficient, but to Dr. Lewis belongs the credit of formulating them and emphasizing their importance. To those who are concerned to stop the flow of mental defect at the source their immediate value is self-If a part, and possibly a large part, of mental defect is localized in certain patches and, more particularly, in certain social classes, it becomes considerably easier to identify the carriers of the defective genes. The area in which we must search for them is to that extent limited and we are saved the labour of traversing much ground where they are less frequently found.

The purpose of this paper is to describe an investigation which has some bearing upon these same questions. The Social Science Department of the University of Liverpool during the last three years has been making a survey of social conditions on Merseyside, similar in character to the Booth Survey of London, which is being repeated after an interval of some forty years. The desire is to present a picture of the social conditions under which the great mass of people are living.

Now it occurred to me when we began our survey that many of our so-called social problems arise because certain classes in the community start life handicapped in one way or another, and never catch up with their fellows in the race. Some are born blind or deaf, epileptic, mentally deficient, physically deformed. Others-it may be due to their initial endowment or their early environment—are persistently addicted to

to become a social burden, are largely recruited.

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drink, crime, immorality. Others again are chronic sufferers from ill-health or unemployment, or they are constantly coming to the Public Assistance Authority or some charitable agency for relief. In all these cases there is some lack of physical, mental, or moral balance, or some failure of social and economic adjustment which makes them a burden upon the community. I thought that if, in the early stages of our survey, the various official and voluntary agencies which are concerned with the welfare of these sub-normal types could supply us with certain information on parallel lines about all their current cases, or a random sample of them, we might in course of time accumulate data of some interest. I therefore designed a card of printed questions which, if adequately answered, would, I hoped, throw additional light on matters such as those which engaged the attention of Dr. Lewis in regard to mental defect. In this way independent confirmation—or, as the case might be, contradiction-of some of his conclusions might be obtained. Moreover, his exceedingly important conception of a Social Problem Group would be approached from a number of different angles, in that it would be broken up into its constituent elements, each of which would be discussed independently, yet in relation to the rest.

Clearly, to accomplish all that we had in mind would have meant co-operation on an ideal scale between a large number of different bodies—which could scarcely be expected. But I should like to register here our deep appreciation of the interest shown in our inquiries by the various agencies we approached and of the generous manner in which they placed their records at our disposal. Without such aid from the West Lancashire Association for Mental Welfare and the Special Schools Department of the Local Education Authority, the inquiry into mental deficiency in this area would have been impossible.

One rather serious difficulty we had to face at the outset. Any information coming to the knowledge of a society concerning a particular family that applies for assistance

must be treated as confidential; otherwise the friendly relations which are so desirable between the body that is helping and the family that is helped are difficult to maintain. Even the fact that a particular family or individual has applied for help should not be made public if it can be avoided. We got over the difficulty in this way. Liverpool we are fortunate in the possession of a general Registration Office, controlled by the Council of Voluntary Aid, which was set up to prevent the overlapping assistance granted by different agencies in the district. Each agency that was to cooperate in our inquiry was given a code letter, and every family concerning which that agency reported to us was given a number. Arrangements were then made for the letter and number to be sent to the Registration Officer, along with the name and address of the family concerned, but no other information of any kind. At the same time the particulars we required about the family were sent to us along with the code letter and number but no name and address. To us, therefore, each family remained quite impersonal, a mere number; but with the help of the data in the possession of the Registration Officer, who was able to locate each case but knew nothing else about it. we can throw some light on the important question of the spread of different types of defect throughout the district.

Another difficulty must be mentioned. For the information we required we were dependent upon the case-paper records kept by each association or authority concerning the cases they assisted. In general we could not, and we did not, expect any direct inquiries to be made about their cases on our behalf. Sometimes, therefore, the information we sought was not available because it was of no immediate interest to the agency concerned to collect it in the prosecution of their work. At other times, though it might be of interest, it was not essential to them and consequently, if not readily accessible, no effort had been made to obtain or confirm it. It follows that the particulars inserted on our cards are not always as complete as we should have liked them to be.

On this point I should like to make a plea in passing, and what I say has reference to all areas, not to Merseyside in particular. Many of the agencies that look after the interests of the blind, the deaf, the mentally deficient, and other sub-normal types are understaffed. They are consequently so busy in running their machinery efficiently that they cannot spare the time to stop to inquire into the value of the work they are doing and whither it all leads. majority of them, though they may have the interest, simply have not the leisure for research into the root causes of the defects with which they deal: they are compelled to live from hand to mouth in an attempt to cope with each fresh crop of cases as they arise. The result is that we do not get the full advantage of the valuable experience they acquire in the process. Since they alone are in the position to obtain the sort of data which can unravel the mysteries relating to the transmission of mental defect from one generation to the next, my plea is that they should try to discover what precise data are likely to throw most light on these questions, and then see to it that the data are accurately and fully recorded in their case papers.

I am not suggesting something which will add enormously to their work—I ask only that an effort should be made to record certain facts which can quite readily be acquired in the ordinary routine visits to the homes of those who are assisted. The facts thus accumulated should in due course be of real value to students of these subjects and they might indeed help towards a solution of some of the difficult problems of human heredity.

THE PEOPLE INVESTIGATED

The remainder of this article will be confined to a brief account of some of the material collected concerning one type only of defect, namely mental defect. It relates to 1,755 persons notified as mentally deficient under the appropriate Mental Deficiency or Education Acts and resident in Liverpool, Bootle, and two or three neigh-

bouring urban districts. All of them were (or had been) attending special schools for mental defectives or were under the supervision of the local Mental Welfare Association. We did not set out to discover cases that were confined in institutions. particulars about each case are recorded on a card, so that we have an equal number of cards giving for each mentally deficient person the sex, age, occupation (if any), and husband's or father's occupation, class of home, age of wife or mother, and the number of children, or brothers and sisters, alive and dead. Also, on the back of the card is recorded any history of near relatives known to be mentally deficient, blind, deaf, or sub-normal in some other respect.

In addition to this material that was collected directly, we obtained indirectly particulars concerning a small number of cases, said to be mentally deficient, in the course of another investigation which might be described as a kind of household census. Every thirtieth house in every street throughout Merseyside-which this time embraced Birkenhead and Wallasey, as well as Liverpool, Bootle, and certain urban districts on both sides of the river—was visited if it was believed to contain a working-class family. The criterion was the occupation or the probable income of the head of the household. The visitor endeavoured to get particulars as to the size and constitution of each family, the occupations of those earning, their economic position, housing conditions, and so on. Fairly detailed information has been obtained in this way concerning nearly 7,000 families, representing a large random sample of the normal population. In making their rounds the investigators found thirty-seven persons alleged to be mentally deficient and it is therefore possible to compare in certain respects the families in which these subnormals appeared with the normal families that were sampled.

I need hardly say that the number of mentally deficient persons discovered by this second method will give an under-estimate of the proportion of such persons in the sampled population because, in the first

place, the investigators did not set out to discover them—they only came across them incidentally; and because, in the second place, relatives would tend to hide, rather than to disclose, their existence. defectives in institutions as well as those under fourteen would only be recorded by chance, since the investigators were in general only seeking to account for potential earners in the household who were over fourteen but were not earning. Though the number may seem to be small, however, I do not think the estimate is altogether unreasonable. The figure for Liverpool alone is equivalent to 1.44 per 1,000 of the sampled population, which may be compared, though the comparison is not a strict one, with a proportion of 1.76 notified mental defectives per 1,000 of the general population discovered in our direct investigation when we included all defectives of the classes already defined.

THE VARIATIONS IN PROPORTIONS

Those who have studied with any care the Report of the Mental Deficiency Committee may be puzzled as to why the proportions just quoted should differ rather widely from the proportion for the country as a whole. as estimated by that Committee. There are at least three reasons for the deficiency: (1) certain classes of defectives, as already explained, are omitted from the Liverpool figures; (2) the incidence of defect is known to be appreciably lower in urban than in rural areas; and, most important of all, (3) the number of defectives officially notified is considerably below the number ascertainable as defective. It was the latter figure which Dr. Lewis set out to discover in his investigations for the Committee, whereas we were concerned with the former.

Confirmatory evidence of the last-mentioned deficiency can be obtained from the Report of the Board of Control for 1930. The number of mentally defective patients under care on January 1st, 1931, is there given as 55,064. This number includes all in approved institutions of various kinds, those under guardianship, and those under

statutory supervision. In addition, there were 21,990 defectives under voluntary supervision, 9,471 "subject to be dealt with " but in respect of whom no action had been taken, and 3,819 known to the Local Authorities but not as yet "subject to be dealt with." Finally, from Dr. Newman's Report on the Health of the School Child we learn that there were, in 1930, 32,130 educable mentally defective children. When all these numbers are put together they total 122,474, or 3 per 1,000 of the population, as against Dr. Lewis' estimate of about 320,000 certifiable defectives, or 8 per 1,000 of the population. Much as we already do for mental defectives the gap between these two figures is some measure of how far short we still fall in our machinery for their notification and care.

The analysis of this material has been a laborious task and is not yet complete. The greater part of it has been undertaken, under direction, by Miss Phyllis M. Perrott, a member of our research staff. Her care and diligence throughout have been beyond praise. The patient amassing of the material, upon which we have built, from widely divergent sources has been the work of Miss J. E. McCrindell, to whom I should like to make warm acknowledgment. Her keen and never-failing interest in the investigation combined with her long experience as a social worker have been extremely valuable.

THE RELATIONSHIP TO SEX

It may be of interest if I mention one or two results that emerge from our work so far as it has gone. First, consider the relation of mental defect to sex. Although we cannot claim to have caught up in the net of our inquiries every mentally deficient person in the district, I do not think our methods have been such as to give either sex a better chance of inclusion than the other. The household census returns gave a proportion of 57 males to 43 females mentally deficient. The direct inquiry gave a proportion of 55 males to 45 females. The Liverpool figures alone for mentally defi-

cient children in special schools between the ages of 5 and 16, which were likely to be more complete, gave exactly the same proportion. These results are in agreement with those of the Government Mental Deficiency Committee. I calculate from their figures that the proportion of males to females was 55 to 45 among children under 16, and 52 to 48 for all ages combined.

The proportions are of course affected by the numbers of normal persons of each sex living in the area of inquiry, but it is well known that in the general population females are in excess of males. instance, at the last census in the area of our inquiry the proportion of males to females was 47 to 53. In our Liverpool sampled population we have not yet analyzed the figures under fourteen, but for those above that age the proportion of males to females was 48 to 52. We are driven to the conclusion that males are more prone to mental defect than females. Some words which I wrote elsewhere on this point are relevant here:

The complacent male sometimes claims that most of the world's geniuses, whether in science or art, have been of his own sex. If these figures are to be accepted as representative the female may with justice retort that at least her sex produces relatively fewer of the mentally deficient class. In other words the male would appear to be the more variable of the two, downwards as well as upwards from the normal.

THE RELATIONSHIP TO AGE

Let us next consider how mental defect is related to age, confining ourselves to persons over sixteen years of age, since the definition of mental defect varies when we pass from children of school age to adults. The Mental Deficiency Committee found that, while in the general population in the area of their investigation 54 per cent. were under forty as compared with 46 per cent. of forty and over, among the mental defectives the proportion over forty fell to 33 per cent. In the mental defective group studied

on Merseyside, only 2 per cent. were over forty and less than 20 per cent. were over twenty-five, whereas in the general population over sixteen sampled in Liverpool, 76 per cent. were over twenty-five.

Whichever figures we take, it is clear that the mentally deficient disappear from sight or die young as compared with the normal population. The figures for Merseyside are more extreme in this sense than those of Dr. Lewis. As already stated, we have not included in our survey the mentally deficient who are in institutions. Also, we should be more likely than he to miss the older defectives; for he counted all he could discover, whether they were notified or not, whereas we only included those who were definitely under supervision. In this area, as in most others, the machinery for searching out feeble-minded persons of mature years is non-existent: they only come to light in general when by some open act they prove their lack of social adaptation. follows that comparatively few of them are under supervision. It would be a great gain if close and friendly touch could be maintained with all those who have in their earlier years attended special schools for the mentally defective.

Mind and body are closely related and other defects or some constitutional weakness are not infrequently associated with feebleness of mind. This partly accounts for a high death rate in early years among the mentally deficient. Were it not, indeed, for the attention and care that is now given to them by doctors, nurses, and trained workers, many of them would not live as long as they do.

THE DEFECTIVE-PRODUCING CLASS

From what class do the mentally deficient spring? Dr. Lewis, as we have seen, found about the same frequency of low-grade mental defectives—idiots and imbeciles—in all classes of the community, but the feebleminded were far more prevalent in what he called the 'Social Problem' class than in any other. What do the Merseyside figures show?

In the household census that was taken of Liverpool and Bootle, particulars were obtained concerning a random sample of over 4,000 families from the general working-class population. All the families containing adult males were then classified according to the grade of occupation of the head of the household, with the following result: 30 per cent. were engaged in unskilled occupations, 26 per cent. in semiskilled, and the remainder in skilled and in non-manual occupations. Nearly 1,200 families each containing one young mentally deficient person between the ages of five and twenty-two were similarly classified according to the father's occupation. Of these 57 per cent. were unskilled and only 23 per cent. were in skilled or non-manual occupa-

The small random sample of families found to contain mentally deficient persons in the household census was also analyzed, with the following result:

In 63 per cent. of them the head of the family was unskilled and in only 7 per cent. was he recorded as skilled.

In one-quarter of these families the head was unemployed, as compared with only one in ten of families in general at the same period of time.

Over 40 per cent. were below a defined poverty line, as compared with 16 per cent. of all the families sampled in the same area.

Eighteen per cent. were living in overcrowded conditions, as compared with 11 per cent. of all the homes sampled.

"LARGELY FROM THE SUB-NORMAL"

The last-mentioned group of families is admittedly small, and I should not put much trust in the figures based upon them, taken by themselves, but they all point in the same direction. They lend support to the conclusion that the feeble-minded are largely drawn from a class of the population that is in other respects sub-normal. The households in which they appear are frequently below the average, whether we judge them by the occupation of the head,

his employability, the economic status of the family, or the home conditions.

FERTILITY OF THE FAMILIES

From the standpoint of eugenics there is another vitally important question upon which our figures have a direct bearingthat is, the contribution which these families make to future generations. We endeavoured to find, when possible, the number of brothers and sisters, alive and dead, of all young mental defectives between the ages of five and twenty-two. Those that were living at home were usually recorded in the case papers, but information would not always be available concerning those living away from home or dead. The estimate we get of the size of family may therefore be regarded as a conservative one. Particulars of the same kind were obtained for the random sample of families investigated in our household census.

For families in general the number of children born per family was 3.92; for families containing one or more young mental defectives the number of children born per family was 7.16, almost double the previous figure.

As we have already seen, there is a tendency for those who are mentally deficient to die young, and it is highly probable that they come from a stock that is constitutionally, as well as mentally, below the average. Evidence of this is found in the number of children recorded as dead per family in the M.D. group of families, which is 2.47 as compared with 0.95 in the group of working-class families sampled from the general population. The net contribution of families in general to future generations is thus 2.97 children per family, while that of the mentally deficient group of families is 4.69.

We carried the analysis of our figures a stage further by dividing our main group of about 1,700 families containing mental defectives between the ages of five and sixty-five into three groups: those containing more than one person classed as mentally deficient, comprising about a quarter of the total; those containing, in addition to the

mentally deficient individual, one or more others classed as mentally retarded, comprising with the first group a third of the total; those containing no other person recorded as deficient or retarded.

FERTILITY PARALLEL WITH DEFECT

When the Liverpool families containing children in special schools for the mentally deficient were graded on this basis according to the occupation of the father, it was discovered that the group of families containing more than one defective recorded the highest proportion of fathers in the lowest occupational grade. The same families also recorded the largest mean number of children per family, both living and dead, namely 5.0 and 2.7 respectively, as compared with 4.6 and 2.4 in the group of families containing a single recorded defective.

In view of these figures it may seem that we have a clear case for segregation or sterilization. But whom shall we segregate or sterilize?—The parents of the defective child? But if we wait until a defective infant is born before we take action against the parents, the deed is done and we are too late. Moreover, while mentally defective persons are found with more than average frequency in families which are below the normal in occupational grade, economic status, and general home conditions, the great majority of such families contain no individual who would be certifiable as mentally deficient. And, as we shall now show, these families are reproducing their kind in numbers larger than families which are normal. Our figures suggest, indeed—I do not claim that they conclusively prove—that there is a definite gradation in fertility: it is highest in families containing more than one defective; it is very high in families with a single defective; it is still distinctly high in families which contain no mentally deficient person but which are sub-normal in some other respect.

The following table provides evidence in support of the last statement:

SIZE OF FAMILY IN CERTAIN SOCIAL GROUPS

Group of families.	Size of	Number of children born per family.
Random sample of working		2
	4,379	3.92
	1,452	4.31
Male head unemployed		4.35
In receipt of Public Assist-		
ance	216	4.54
Below the poverty line	751	4.71
Overcrowded	397	6.06

It is possible also to compare the number of living children per family in the 1,115 families containing at least one mentally defective member with the corresponding figure in 86 families where the defect is blindness, in 186 families where the defect is deafness, and in 52 families where the defect is epilepsy, the defective individual in each case being between the ages of five and twenty-two. Here we cannot compare the number born, because the number of children dead was frequently not recorded and was sometimes unreliable.

The mean number of living children per family in the mentally defective group was 4.69; in the blind group it was 4.88; in the deaf group it was 4.59; in the epileptic group it was 4.50. All these results are considerably in excess of the mean number of children alive per family in the general working-class population which, as we saw, was 2.97.

There is one point here which might quite easily be overlooked and to which I think attention should perhaps be drawn. Since all the families with a defective child must have had at least one child, it might with some degree of fairness be argued that such families should only be compared with normal families which have also had at least one child: in other words we should exclude from our normal group all families for which no living or dead children were recorded. If that be done, the mean number of living children in the normal group is increased by only about one-third of a child per family, so that it is still definitely less than the mean number of living children in the defective groups.

THE EUGENIC PROBLEM

We have ventured to class the different types of families we have been considering as all in a sense sub-normal, and it seems clear from the figures quoted that such families are in general bringing more children into the world than normal families. Now, just as in mental defect there are different grades—and possibly different species—so mental defect itself may be regarded, in its social reactions, as only one of a genus of defects and disabilities. If, then, we are to limit the production of children in the mentally defective group, is there any reason why we should stop there, and if not, where should we draw the line?

In answer to this question it has to be admitted that we cannot be strictly logical. We shall be driven to adopt different methods for different classes by the force of public opinion, if for no other reason. Sterilization might come to be accepted as suitable for certain types: for others the desired result might be best achieved by a scaling down of social benefits. I will briefly indicate the sort of case which I think would be likely to fall under these two heads, starting with the second.

It is possible that some of the groups we have been discussing may have larger families than the normal because they are naturally and constitutionally more fertile. On that point we have no very definite evidence. But it is certainly the case that such families have not the same inducement as normal families to limit the number of their children. The complaint is continually heard that, at the intelligent end of the scale, where more children would be a decided advantage to the State, we have the well-attested fact of family limitation; at the opposite end, where they become a drag on the rest of the community, the effect of our social services is such as actually to encourage the production of large families. A member of the Survey staff was recently informed on good authority that, in a certain area of Liverpool, which I shall not name, where families have long been suffering from hopeless unemployment, young people from the age of eighteen years onwards are almost pushed out of the home by their parents, like small birds from their nests; it is not done unkindly: they see the advantage of getting married and setting up for themselves, though it may be only in a single room, because the Public Assistance granted to a young man and his family is on a more generous scale than the allowance which they would receive if they were unmarried and living as dependants upon their parents.

It would be unfair to assume that this alleged practice is universally prevalent, even if it be true of one small patch of Liverpool; I have thought it worth mentioning only because it is indicative of a tendency. Most of us, in these days, believe in the principle underlying the social services, and we realize the benefits which they have brought to the working classes; but I think the time has come when we must exercise more refined methods in selecting the families which are to enjoy these benefits. No humane person would wish to see anybody destitute, but we cannot afford to give—and indeed we do not at present give —without reasonable inquiry into the means and qualifications of applicants for assist-In particular, those who have any regard to the future of the race will agree that we should try to avoid giving in such a way as to put a premium on the production of a pauper class. One can see that there are many difficulties in the way of attaining this result. How precisely they should be overcome is a matter upon which we should look for some guidance to those who have had long experience in the administration of relief.

THE REMEDIES SUGGESTED

Turning now to the proposed alternative method of family limitation which, as a supplement to segregation, has received some measure of influential support, we have allowed that it would be neither entirely just nor entirely effective to adopt compulsory sterilization for mentally defective persons alone. With suitable safeguards, however, it is felt that there would

not be the same injustice—and there should be definite social advantage—if the voluntary sterilization of the mentally defective and certain other classes could be legalized. Our first aim should be to prevent, so far as possible, the birth of children who are likely to be the victims of some serious hereditary disease or defect of mind or body transmitted by either parent.

With that in view, it is suggested that any individual who has been certified by one or more qualified medical practitioners as suffering from such a disease or defect should be advised to undergo sterilization. The necessary safeguards proposed are that the operation should only be authorized by a properly qualified board—which, in the case of mental defectives, might be the Board of Control—and that it should only be performed with the consent of the person concerned or, if he should be under age or defective, the consent of his parent, guardian, or spouse. Although such consent would be essential, there is no reason why moral pressure should not be used to obtain For instance, a mentally defective or an insane person in an institution might be perfectly harmless and therefore fit to live with relatives, except for the one danger that he or she might be capable of producing a child suffering from a like defect. would not be unreasonable, from the point of view of society, to grant perfect freedom to such an individual on condition that he or she were willing first to be sterilized.

The same procedure has been proposed for the recidivist type of criminal who is constantly in and out of prison, for the adult male who has been found guilty of a sexual offence against a child under fourteen, and for the mentally retarded young woman who periodically enters a maternity home to be delivered of an illegitimate baby. The justification for it in these cases would not be on racial grounds but because such persons could not be regarded as suitable parents. It might be impossible to prove that the offspring of any of these particular types would of necessity be defective or diseased, but it is almost certain that their home conditions would be most unsatisfactory and that in one way or another the children would themselves be likely to become a burden upon others.

All may not be prepared to go to the lengths which I have indicated, but probably few will dispute the desirability of putting a limit to the burdens which the recidivist and the sexually irresponsible are permitted gratuitously to impose upon the State. When that limit is reached such persons should only be given their freedom on condition that they are not able to abuse it in a manner injurious to the race, and those who cannot accept sterilization as a suitable method of preventing such abuse should do all in their power to promote the discovery of a better alternative.

It is generally acknowledged that to bring a genius into the world is to confer a lasting benefit upon mankind. As our knowledge of genetics grows, one hopes the day will also come when to produce a child who is mentally deficient, who is afflicted with some grave disease or deformity, or who is branded at birth with the stigma of pauperism, will be considered and treated as a crime against both the child and society.

